

Remarks

In the March 24, 2005 Office Action, a restriction requirement was imposed under 35 U.S.C. §121, against claims 1-24 originally filed in the application, as between:

Group I claims 1-11, 23 and 24, drawn to an abrasive composition;

Group 2 claims 12-17, drawn to a method of making an abrasive using molten metal; and

Group 3 claims 18-22, drawn to an apparatus.

In response to such written requirement, applicant hereby elects Group I claims 1-11, 23 and 24. Such election is with traverse.

The traversal of the restriction requirement is based on the fact that the subject matter of the respective groups of claims is not independent and distinct, as required by the statute for proper restriction of subject matter.

The relevant section of the statute (35 U.S.C. §121) provides that "[I]f two or more independent and distinct inventions are claimed in one application, the Director may require the application to be restricted to one of the inventions."

The statute therefore requires that the subject matter of respective groups of claims to be "independent and distinct" in relation to one another, as a basis for restriction.

The respective groups of claims identified by the Examiner in the March 24, 2005 Office Action do not meet this criteria.

The Group I claims include claim 23. Claim 23 is reproduced below for ease of discussion:

**23. An abrasive manufactured by an abrasive manufacturing method comprising the steps of:
causing molten metal contained in a tundish including an ejecting nozzle to eject from the ejecting nozzle; and
ejecting a high-pressure fluid onto the molten metal ejected from the ejecting nozzle in such a manner that the high-pressure fluid will form a generally conical shape, which converges downwards, and will surround the molten metal, thereby powdering the molten metal;**

wherein the angle of a vertex of the generally conical shape that is formed by ejection of the high-pressure fluid is set between not less than 10 degrees and less than 30 degrees.

This product-by-process claim recites the identical method steps that are set out in Group II claim

12. Claim 12 is also reproduced below for ease of comparison with the foregoing claim 23:

**12. An abrasive manufacturing method comprising the steps of:
causing molten metal contained in a tundish including an ejecting nozzle to eject from the ejecting nozzle; and
ejecting a high-pressure fluid onto the molten metal ejected from the ejecting nozzle in such a manner that the high-pressure fluid will form a generally conical shape, which converges downwards, and will surround the molten metal, thereby powdering the molten metal;
wherein the angle of a vertex of the generally conical shape that is formed by ejection of the high-pressure fluid is set between not less than 10 degrees and less than 30 degrees.**

It therefore is seen that the recited method of claim 12 is identical to the method steps recited in product-by-process claim 23. The Group II claims 12-17 on such basis (claims 13-17 being directly or indirectly dependent from claim 12) therefore are NOT independent and distinct, but rather set forth an identically recited methodology. The imposition of a restriction requirement between the Group I and Group II claims therefore is improper under the criteria of the statute.

Concerning the restriction between the Group I and Group III claims, claim 24 of the Group I claims is set out below for ease of reference:

**24. An abrasive manufactured by an abrasive manufacturing device comprising:
a tundish for containing molten metal;
an ejecting nozzle mounted on the tundish to cause the molten metal contained in the tundish to eject out; and
an atomizing nozzle for ejecting a high-pressure fluid onto the molten metal ejected from the ejecting nozzle in such a manner that the high-pressure fluid will form a generally conical shape, which converges downwards, and will surround the molten metal;
wherein the atomizing nozzle causes the high-pressure fluid to eject so that the angle of a vertex of the generally conical shape that is formed by ejection of the high-pressure fluid will be between not less than 10 degrees and less than 30 degrees.**

The apparatus recited in the foregoing claim 24 of the Group I claims is identical to the apparatus recited in claim 18. Claim 18 is reproduced below for ease of comparison:

**18. An abrasive manufacturing device comprising:
a tundish for containing molten metal;
an ejecting nozzle mounted on the tundish to cause the molten metal contained in the tundish to eject out; and
an atomizing nozzle for ejecting a high-pressure fluid onto the molten metal ejected from the ejecting nozzle in such a manner that the high-pressure fluid will form a generally conical shape, which converges downwards, and will surround the molten metal;
wherein the atomizing nozzle causes a high-pressure fluid to eject so that the angle of a vertex of the generally conical shape that is formed by ejection of the high-pressure fluid will be between not less than 10 degrees and less than 30 degrees.**

Thus, the claims of Group III (claim 18 and claims 19-22 dependent thereunder) are NOT independent and distinct from the Group I claims, but are directed to subject matter including identically recited apparatus. The respective subject matter of the Group I and Group III claims therefore is related and interdependent. There is no basis in the statutory criteria for imposing a restriction requirement between the Group I and Group III claims.

On such basis, the restriction requirement does not comply with the necessary "independent and distinct" criteria of the statute (35 U.S.C. §121), and it therefore is respectfully requested that the Examiner withdraw the restriction requirement, in favor of continued consolidation of all claims 1-24 for search and examination purposes.

Although the foregoing provides clear and compelling basis for maintaining all claims in consolidated form for further proceedings, in the event that the Examiner nonetheless maintains the restriction requirement to any extent, applicant invokes the right of rejoinder under M.P.E.P. §821.04 as to the non-elected claims. Further, in the event that the Examiner maintains the restriction requirement, and refuses rejoinder of claims, applicant reserves the right to file divisional application(s) directed to the subject matter of the non-elected claims.

It therefore is requested that examination on the merits be carried out for all claims 1-24 of the application.

Respectfully submitted,



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